

REMARKS/ARGUMENTS

Status of the Claims

In the final Office Action mailed April 1, 2005, claims 1, 3, 5-16, 18, 19 and 21-26 were pending and were rejected. This rejection is respectfully traversed. Claims 1, 5, 11, 15, and 19 have been amended. No new matter has been added. Claims 23-26 have been cancelled without disclaimer or prejudice. New claims 28-30 have been added, leaving claims 1, 3, 5-16, 18-19, 21-22 and 28-30 pending. Applicant has thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the references cited therein. The Examiner is thanked for his interview on July 12, 2005.

The Office Action requests that the Applicant provide a date that the prior art was known. The Applicant is not aware of the date.

The following remarks are believed to be fully responsive to the Office Action. All the pending claims at issue are believed to be patentable over the cited references. Reconsideration and withdrawal of the outstanding rejections are respectfully requested in view of the following remarks.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they did not include reference signs as mentioned in the description: 94, 98 and 102. Reference to 94, 98 and 102 have been deleted from the application, by amendments to the specification. In light of these amendments, Applicant respectfully requests that the objection be withdrawn.

Claim Objections

Examiner objected to claims 1 and 11 because of the following informalities: in claim 1, first line, “Method” should be changed to “method”; and in claim 11, first line, “claim 2” should be changed to “claim 1”, as claim 2 has been cancelled. Applicant has amended the claims to conform with the Examiner’s requests. Therefore, Applicant respectfully requests that the objection be withdrawn.

Claim Rejections – 35. U.S.C. §102 (a) or (b)

The Examiner rejected claims 23-26 under 35. U.S.C. §102, (a) or (b) as being anticipated by the applicant’s admitted prior art (hereinafter APA) (paragraphs [0002]-[0007] of the specification). This rejection is moot in light of claims 23-26 being cancelled without disclaimer or prejudice.

Claim Rejections 35 U.S.C. §103(a)

Examiner rejected claims 1, 3, 5-16, 18, 19, 21 and 22 under 35 U.S.C. §103(a) as being unpatentable over the APA, (paragraphs [0002]-[0007] of specification) in view of U.S. Patent No. 5,343,926 to Cheskis, *et al.* (hereinafter Cheskis). Claims 1, 5, 11, 15 and 19 have been amended. Support for the amendment may be found at least in paragraph 36, 37 and 45 of the specification.

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. *MPEP* §2142. To establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some suggestion or motivation to modify the references or to combine reference teachings. Second, there must be reasonable expectation of success. Finally,

the prior art must teach all the claim limitations. *MPEP* §2142. In light of the following arguments, the combined references do not teach or suggest all of the claim limitations of the present invention. Applicant respectfully points to the final prong of the test which states that the prior art must teach all of the claim limitations. At the very least, the combined references do not teach all of the limitations of these claims as stated below.

Claim 1

The APA does not teach or suggest, at least, *inter alia*, “forming a first surface of a chill block from a first material; and chemically bonding a second material to the first surface,” as recited in claim 1. Rather, the APA is directed to two part chill blocks that are mechanically fastened together. Further, the APA does not disclose rapid solidification.

Cheskis does not cure the insufficiencies of the APA. Instead Cheskis is directed to spray casting a metal or metal alloy into thin, long strips. (Col. 3 lines 59-62). Moreover, Cheskis is directed to, “metal alloy strip that can be removed from a collecting member 18 with the collecting member moving at a continuous rate.” (Col. 4, lines 55-59). Thus, Cheskis sprays onto a substrate and then peels off the solidified metal. In contrast, the present invention does not peel off and provides for a permanent bond to the substrate. Furthermore, Cheskis makes no mention of a chill block.

Accordingly, neither the APA, nor Cheskis, alone or in combination, teach or suggest, at least, *inter alia*, “forming a first surface of a chill block from a first material; and chemically bonding a second material to the first surface,” as recited in claim 1.

Claims 3, 5-14 and 28 depend from independent claim 1. Because claim 1 is believed to be in condition for allowance, claims 3, 5-14 and 28 are also believed to be in condition for

allowance, at least by reason of their dependency. Accordingly, withdrawal of the rejection is respectfully requested.

Claim 15

For the reasons stated previously, neither the APA, nor Cheskis, alone or in combination, teach or suggest, at least, *inter alia*, “using a rapid solidification process to spray a first material that forms a first layer of a chill block; using said rapid solidification process to spray a second material onto a first surface of the first layer, said second material comprising copper wherein the second material is chemically bonded to the first layer,” as recited in claim 15. Claims 16, 18, and 30 depend from independent claim 15 which is believed to be in condition for allowance. Therefore, claims 16, 18, and 30 are also believed to be in condition for allowance, at least by reason of their dependency. Accordingly, withdrawal of the rejection is respectfully requested.

Claim 19

For the reasons stated previously, neither the APA, nor Cheskis, alone or in combination, teach or suggest, at least, *inter alia*, “a chill block base having a top surface and a bottom surface and comprising a first material; and a first layer of a second material chemically bonded to the top surface of the chill block base,” as recited in claim 19. Claims 21-22 and 29 depend from independent claim 19 which is believed to be in condition for allowance. Therefore, claims 21-22 and 29 are also believed to be in condition for allowance, at least by reason of their dependency. Accordingly, withdrawal of the rejection is respectfully requested.

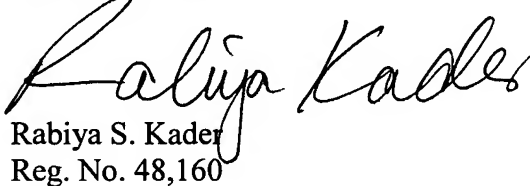
CONCLUSION

In view of the foregoing remarks, Applicant respectfully submits that this application is in condition for allowance. Should the Examiner believe that anything further is necessary to place the application in even better condition for allowance, the Examiner is invited to contact the undersigned attorney at 202-861-1746 in an effort to resolve any matter still outstanding before issuing another action.

In the event this paper is not timely filed, Applicant petitions for an appropriate extension of time. Please charge any fee deficiencies or credit any overpayments to Deposit Account No. 50-2036 with reference to our Docket No. 87324.1800.

Respectfully submitted,

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